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FISHMAN

USER GUIDE
MATRIX INFINITY™

Welcome

Thank you for making Fishman a part of your acoustic experience. We are proud to offer the finest acoustic amplification products available; high-quality professional-grade tools which empower you to sound your very best.

Controls

Plug In • Connect the Matrix Infinity to your amplifier or PA with a ¼-inch instrument cable. To conserve battery life, remove the instrument cable from the guitar when the system is not in use.

Volume • For the cleanest noise-free sound, set the volume as high as possible without causing your amp or mixer to distort.

Tone • This innovative one-knob tone control lets you choose between a natural, undersaddle sound with no EQ (flat) on up to a "Scooped" tone with emphasized treble and bass and reduced midrange.

- To make individual notes sound thicker and punchier, roll the Tone control to the right.
- Try the Tone control in the middle position for fingerpicking, when you need just a bit of midrange cut.
- Roll the Tone control all the way to the left for more depth and clarity to your sound, especially for hard strumming.

Voicing
Bass Boost
Flat
Tone
Flat
Scooped
Volume
Louder

Additional Controls

Voicing Switch

This switch selects how the pickup is voiced. Move the Voicing Switch away from the soundhole for bass boost and towards the soundhole for a flat response. Choose the setting that works for your instrument and your performance requirements. Here are some guidelines:

- The boosted bass voicing (push switch away from soundhole) compliments solo guitarists and singers who accompany themselves, especially with smaller instruments.
- The flat voicing (switch towards soundhole) cuts through the mix if you play in a band. It does a good job controlling boominess and low frequency feedback onstage, especially with full-size guitars.

Battery Replacement

A low battery LED is built into the preamp housing mounted inside the guitar. When the Battery LED lights steadily, it is time to change the battery. To replace the battery, remove the fabric battery bag that is mounted inside the guitar.

If you ship your guitar, we recommend you remove the battery as a precaution. Although unlikely, it is possible for the battery to jar loose inside the instrument during shipment.

Troubleshooting

Installation by a qualified professional is strongly recommended.

Should you have any problems, please check with your installer or refer to the online installation guide for this product. Technical support, troubleshooting tips and installation information can be found at http://www.fishman.com/support/

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Read Me First!

Installation of this product is a straightforward procedure, but we recommend this job only if you are an experienced repair technician.

Requirements

Saddle Slot:

Minimum saddle slot length: 2.775" (70.48mm)
Maximum E to E string spacing at saddle: 2.5" (63.5mm)

Wide Format Width: .125" (3.17mm)

Narrow Format Width: .094" (2.39mm)

Preliminary

1. Widen the endpin hole to 15/32" (11.9mm) to accommodate the endpin jack.

2. Drill a 3/32" hole (2.4mm) in the saddle slot for the pickup wire, no less than .100" (2.5mm) from nearest string.

Standard Installation

For nylon string instruments or installation without the control module, refer to the Installation Options below prior to mounting the Volume & Tone controls.

1. Test the area where you will mount the Volume & Tone control module. Locate the module flush with the edge of the soundhole, on the bass side, between the transverse brace and the bass-side x-brace (figure 1).

2. Remove any lacquer and/or buffing compound from this area using fine grit sandpaper. Clean this surface with an alcohol wipe or a cotton swab moistened with rubbing alcohol. Let dry.

Note: For the strongest bond we recommend that you now apply a water-based primer/sealer to the bare wood inside the soundhole. Let the primer/sealer dry before continuing.

3. Peel back the release film on the bottom of the preamp module and fasten the preamp to the underside of the soundhole. Apply even, steady pressure to the module to set the adhesive. The adhesive gains maximum hold after 24 hours.

4. Install the pickup per Acoustic Matrix Installation Instructions.

5. Open the preamp body by unscrewing the single screw on the side opposite the Matrix Infinty logo. Flip the preamp over so the circuit board remains in the plastic housing (figure 2).

6. Fasten the pickup wires to the terminal block on the preamp module. The signal wire goes to the terminal marked "IN" and the shield wire goes to the "GND" terminal. Tighten the screws on the terminal block to secure the wires. Do not shorten the pickup wire.

7. Replace the preamp's back cover being sure the wires do not get pinched by any plastic parts. The housing should easily fasten tightly when the screw is replaced.

8. Secure the wires inside the instrument with the supplied adhesive-backed clips (figure 1). Clean the bare wood surface where you will fasten the clips. Use an alcohol wipe or a cotton swab moistened with rubbing alcohol.

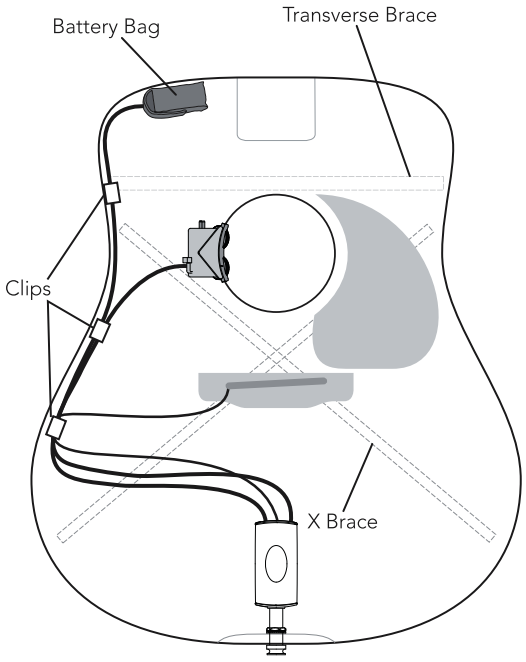


Figure 1.

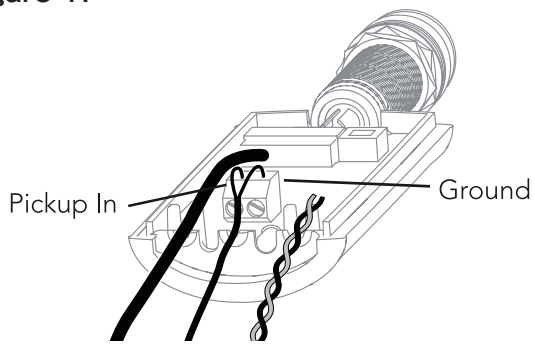


Figure 2.

Battery Bag

Install the battery bag on or near the neck block as shown in figure 1.

1. Clean the area where you will mount the bag with an alcohol wipe or cotton swab moistened with rubbing alcohol. Let dry.

2. Peel off the plastic film from the Velcro patch and attach the bag at the chosen location.

3. Carefully separate the bag from the Velcro patch. To set the adhesive, burnish the entire area of the patch, especially the edges.

4. Install a 9V alkaline or lithium battery. Tuck the battery into the bag and re-attach to the Velcro patch. The adhesive under the Velcro patch requires 24 hours to achieve a full bond, so take care to not stress the adhesive if you remove the battery bag after the initial installation.

Installation Options

Nylon String Guitar Mount

An optional control module mount is provided in the package for use with nylon string guitars whose bracing patterns may interfere with the standard mount. To install this:

1. Carefully push back the retaining latch and rock the control module circuit board away from the plastic mount as shown in figure 3.

2. Locate the included nylon string guitar mount and snap it into place as shown in figure 4.

Installation Without Controls

Under normal installations, the Volume and Tone control module is installed in the soundhole. Optionally, the infinity preamp may be installed without these controls, however this requires setting the circuit board-mounted switches appropriately as shown in figure 5.

1. To remove the control module, open the Infinity preamp case and gently pull the control module cable and connector away from its circuit board-mounted connector.

2. Use switch marked with a "1" to select either a bass boost ("ON" position) or the flat setting.

3. Set the switch marked with a "2" to the "ON" position. This allows the preamp to operate properly without the control module in place.

Second Pickup Source Option

A second source such as a microphone or magnetic soundhole pickup may be added (figure 6). The output will appear on the ring connection when a tip-ring-sleeve 1/4" jack is inserted.

For specific wiring diagrams, refer to fishman.com.

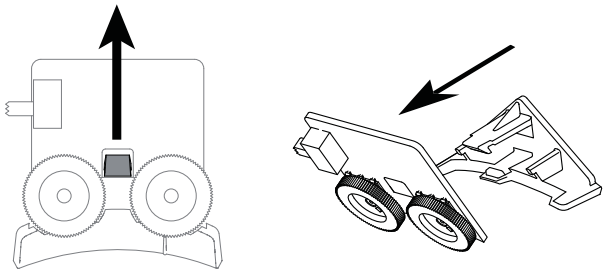


Figure 3.

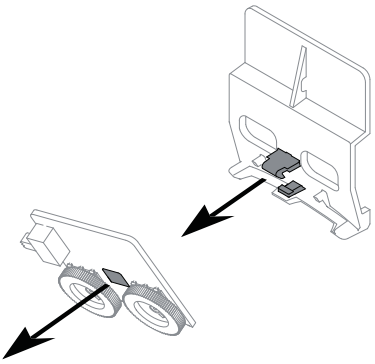
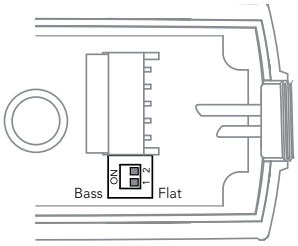


Figure 4.



With Volume & Tone controls **installed**

If controls are **removed**:
1. Set switch 2 to ON

2. Choose Flat voicing or

Bass Boost with switch 1.

Figure 5.

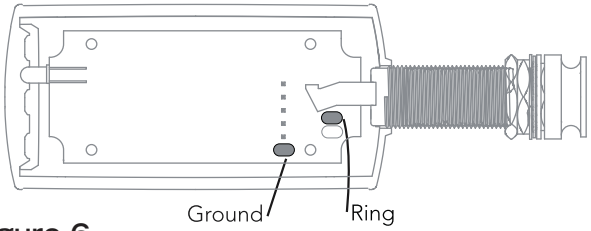


Figure 6.

514-300-003 Rev B 5-08

ACOUSTIC MATRIX PICKUP INSTALLATION GUIDE

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Requirements

Saddle slot

Minimum saddle slot length: 2.775" (70.4mm)

Maximum E to E spacing at saddle: 2.5" (63.5mm)

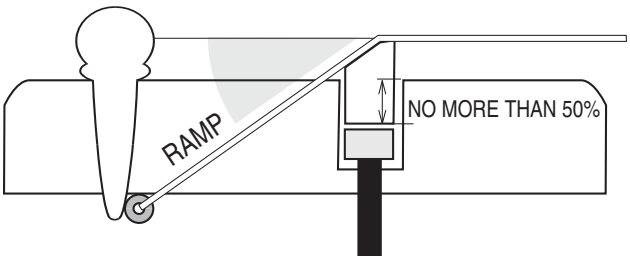
Installation

Observe the following precautions!

- Handle the pickup carefully! Do not trim the pickup to make it fit. Mishandling may tear the delicate foil shield, producing ground hum or intermittent signal.
- Do not shorten the pickup wire. This will result in poor pickup performance and loss of bass.
- Both the saddle and saddle slot must be flat and square for proper pickup performance and balance.

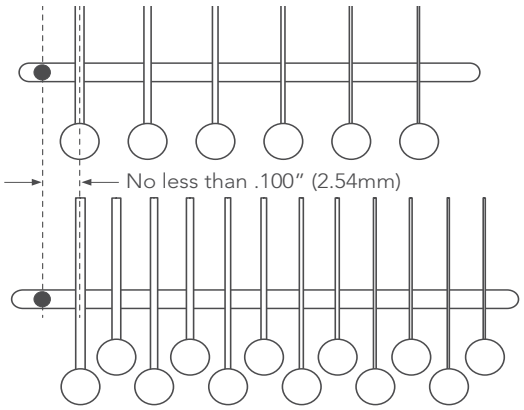
Mechanical factors affecting pickup performance

- Break Angle: In order for the pickup to perform optimally, there should be a 20° (minimum) string break angle across the back of the saddle.
- The 50/50 Rule: There is an important relationship between the overall saddle height and the bridge slot depth. We suggest that the saddle slot depth (with pickup installed) measures no more than 50% of the total height of the saddle. If the slot measures more than 50% the total height of the saddle, balance and/or output level of the pickup may suffer.



1. Locate the wire hole

1. Locate the center of the wire hole no less than .100" (2.5mm) from the closest string.



2. Mark the location where the wire will enter the saddle slot. Center the mark between the walls (width) of the slot.

3. Drill a .094" hole.

4. Clear wood chips and foreign materials from the saddle slot.

5. Carefully insert (do not bend) the pickup. The pickup must fit loosely in the slot, without binding. If the corners of the pickup touch the radiused ends of the saddle slot, pickup failure could result.

2. Prepare the saddle

Organic saddles (eg, bone or ivory) are not structurally as consistent as synthetic materials and may not produce optimal string balance through the pickup. Synthetic materials such as Micarta™ or Corian™ are suggested.

1. Prepare a .125" wide saddle (.094" for Narrow Format). The bottom of the saddle must be flat.

2. Remove only enough material from the width of the saddle to provide a sliding fit in the slot. To test the fit, the saddle should slide easily in the slot, but should not fall out when overturned. To maintain your current action, the new saddle must be .053" shorter in height (.043" for Narrow Format pickups) than your current saddle.